

ABSTRACT

This invention concerns an improvement of the supercurrent carrying capabilities, i.e. the increase of critical current densities, of polycrystalline superconductor structures, especially of high- T_c superconductors fabricated with a coated conductor technique to provide superconducting layers containing flat grains. A superconductor with superior critical current density is obtained by joining, i.e. pressing or otherwise bringing into intensive facial contact, preferably superconducting contact, two or more such superconducting layers.